ESM Methods

Antibodies

The immunogen used to generate the anti-α-tubulin primary antibody was obtained from sea urchin (*Strongylocentrotus purpuratus*); the manufacturer specifies that it recognises a C-terminal epitope. We performed a multiple protein sequence alignment with BLAST, using the following NCBI protein records: (i) *Sus scrofa* P02550.1, (ii) *Strongylocentrotus purpuratus* XP_011676844.1, (iii) *Mus musculus* NP_035783.1. The procedure yielded a 97% and 99% sequence homology for *Sus scrofa* vs *Strongylocentrotus purpuratus* and *Sus scrofa* vs *Mus musculus*, respectively. For both comparisons, the alignment score is maximal (≥200) over the whole sequence. Notably, the antibody has been already validated for use on mouse samples. The porcine and murine sequences display a very high sequence homology and none of the mismatches is located at the C-terminal. Therefore it is highly likely that the antibody recognises minipig α-tubulin as well as it recognises mouse α-tubulin.